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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/605,709	06/27/2000	Frederick J. Damerau	YOR9-2000-0324US1	3738

30743 7590 11/20/2002

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EXAMINER

AZAD, ABUL K

ART UNIT PAPER NUMBER

2654

DATE MAILED: 11/20/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/605,709

Applicant(s)

DAMERAU ET AL.

Examiner

ABUL K. AZAD

Art Unit

2654

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 June 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. This application has been filed with informal drawings which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1 and 3 are rejected under 35 U.S.C. 102(e) as being anticipated by Colbath et al. (US 6,311,182).

As per claim 1, Colbath teaches, "an automated method for setting up an instance of a natural language conversational interface in a Web site comprising the steps of":

“defining a hierarchy of topics into which individual documents or Web pages can be classified” (col. 5, lines 40-67, reads on “text has been marked to indicate the token class or state which belongs”; and here Viterbi Algorithm is hierarchy of the topic);

“generating a keyword index for those documents for an associated search engine” (col. 3, lines 1-12, reads on “most probable word strings are searched . . . the output from the speech recognizer is searched against a database of topics stored in a previously formulated and stored list”); and

“for each node in the hierarchy, specifying a mechanism for associating an input natural language (NL) query to the node” (col. 5, lines 1-33, reads on “all word HMM model sequences allowed by the grammar are searched to find the word sequence with the highest probability of generating that particular sequence of feature vector”, inherently they are searching input natural language).

As per claim 3, Colbath teaches, “further comprising the step of optionally reviewing and editing the keyword index” (col. 2, lines 20-35, reads on “the search engine may be retrieve web pages found which are displayed for the user. There may be words returned that are highlighted and further search via the identification module to be used as links for generating particularity and more detailed information”; here further search is done by edition the key words).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2, 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Colbath et al. (US 6,311,182) as applied to claim 1 above, further in view of Sarukkai et al. (US 5,819,220).

As per claim 2, Colbath does not explicitly teach, "wherein the step of generating a keyword index comprises the step of extracting sparse n-grams of keywords for each group of pages in the topic hierarchy". However, Sarukkai teaches, "wherein the step of generating a keyword index comprises the step of extracting sparse n-grams of keywords for each group of pages in the topic hierarchy" (col. 9, lines 19-22, reads on "n-gram language model score using the HTML sources of the documents recently viewed"). Therefore, it would have been obvious to use n-grams of keywords for each group of pages in the topic hierarchy because Sarukkai teaches to use n-grams in order to improve speech recognition accuracies (col. 10, lines 35-36).

As per claim 4, Colbath teaches, "an automated method for setting up an instance of natural language interface in a web site comprising the steps of:"

"automatically inducing a classification hierarchy by examining a structure of the Web site" (col. 4, lines 1-14, reads on "these hypertext link words highlighted point to specific classes of subject matter");

"creating rules for a classification engine reachable from each node in a hierarchy of leaf pages, wherein each node is a classification category and the rules associated with that category are used to decide if a new input document or query

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reference the node" (col. 5, line 40 to col. 6, line 17, rules is Viterbi algorithm, Viterbi path follows leaf pages).

Colbath does not explicitly teach, "creating index terms for leaf pages from sparse n-grams". However, Sarukkai teach, "creating index terms for leaf pages from sparse n-grams" (col. 9, lines 19-22, reads on "n-gram language model score using the HTML sources of the documents recently viewed"). Therefore, it would have been obvious to use n-grams of keywords for each group of pages in the topic hierarchy because Sarukkai teaches to use n-grams in order to improve speech recognition accuracies (col. 10, lines 35-36).

As per claim 5, Colbath teaches, "wherein the step of creating rules for a classification engine is performed automatically and further comprising the optional step of manually editing the rules" (col. col. 5, line 40 to col. 6, line 17, rules is Viterbi algorithm, Viterbi path follows leaf pages, which is automatically performed, it is inherent to manually edit the rules").

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Abul K. Azad** whose telephone number is **(703) 305-3838**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Marsha D. Banks-Harold**, can be reached at **(703) 305-4379**.

Any response to this action should be mailed to:

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Commissioner for Patents
Washington, D.C. 20231

Or faxed to:

(703) 872-9314

(For informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application should be directed to the Technology Center's Customer Service Office whose telephone number is **(703) 306-0377**.

Abul K. Azad

November 18, 2002

A handwritten signature in black ink, appearing to read 'A-K. Azad', with a stylized flourish at the end.